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ABSTRACT

This report presents national survey results of public school teachers' opinions on the relationship between interior design and academic performance. The 1,050 teachers surveyed reveal that they recognize the relationship between interior design and academic achievement and that most teachers see the advantages of classroom carpeting relative to acoustics, comfort, and flexibility. While three-fourths of those surveyed consider a school's interior design "very important" for creating a good learning environment, only 18 percent gave their classroom an "A" for overall design. Most respondents rate carpeting as an important design feature. Carpeting is also the most prevalent and most popular of classroom floor coverings. While respondents who have classroom carpeting give their classrooms higher marks than classrooms without carpeting, elementary school teachers find carpeting particularly appealing. An appendix presents the survey's regional groupings by state, and includes seven figures and three tables. (GR)

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## ***NATIONAL SURVEY OF PUBLIC SCHOOL TEACHERS***

**Prepared for**

***THE CARPET AND RUG INSTITUTE AND  
THE INTERNATIONAL INTERIOR DESIGN ASSOCIATION  
FOUNDATION***

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## **INTRODUCTION AND METHODOLOGY**

This report presents the findings of a national survey conducted by Beth Schapiro & Associates of public school teachers. The survey, which examines teachers' opinions regarding the relationship between interior design and academic performance, was conducted for the Carpet and Rug Institute and the International Interior Design Association Foundation.

The poll was conducted August 18-24, 2000 among a nationwide sample of 1,050 public school teachers. Professional interviewers contacted respondents by phone and administered a questionnaire that required approximately 10 minutes to complete. The sample is stratified by region and grade level.<sup>1</sup> The margin of error for the full sample is  $\pm 3\%$ , while the margin of error for subgroups is somewhat higher.

The Executive Summary details the key overall findings from the study. Pages five-13 illustrate responses to questions from the survey. Throughout the report, subgroups that are significantly different from the sample as a whole are highlighted in bullet points. Subgroups are analyzed according to region, gender, grade level, number of years in education, age of school, the type of floor covering a respondent has in the classroom, and whether carpet is appropriate in a respondent's classroom. Also, respondents who both want carpet in their classrooms and have a classroom in which carpet is appropriate are analyzed as a separate subgroup. Table 1 illustrates the composition of the sample according to these various characteristics. *It is important to note the percentages of each demographic category and to keep the relative size in mind when comparisons are made throughout the report. In addition, due to rounding whole numbers, there are instances where tables do not sum to 100% and may have a variance of  $\pm 2\%$ .*

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<sup>1</sup> For the purpose of analysis, the U.S. is divided into the following six regions: South, Northeast, Midwest, Mountain/Farm, Southwest, and West Coast. Appendix A lists the states in each of these regions.

**TABLE 1: CHARACTERISTICS OF THE SAMPLE**

<b>Region</b>	West Coast	13%
	South	24%
	Mountain/Farm	10%
	Midwest	18%
	Northeast	22%
	Southwest	13%
<b>Gender</b>	Male	15%
	Female	85%
<b>Years in education</b>	1-5	15%
	6-10	17%
	11-20	30%
	Over 20	38%
<b>Grade level of school</b>	Elementary	53%
	Middle/junior high	22%
	High	24%
<b>Age of school</b>	1-5	13%
	6-15	13%
	16-25	15%
	26-40	33%
	Over 40	23%
	Don't know	3%
<b>Floor covering in respondent's classroom</b>	Carpet	42%
	Hardwood	3%
	Linoleum/vinyl	15%
	Tile	25%
	Combination	12%
	Other	2%
<b>Appropriateness of carpet</b>	Inappropriate/has carpet	11%
	Inappropriate/no carpet	21%
	Appropriate/has carpet	30%
	Appropriate/no carpet	36%
<b>Target subgroup</b>	Appropriate/wants carpet	37%

## **EXECUTIVE SUMMARY**

Overwhelmingly, teachers recognize the relationship between interior design and academic achievement. The results of this survey indicate that teachers across the country and from all grade levels realize that a well-designed classroom enhances their ability to teach and their students' ability to learn. The results also suggest that most teachers see the advantages of carpet in the classroom, particularly the acoustics, comfort, and flexibility of carpet. Below, we highlight some of the study's key findings.

### **Overall**

- ? ? ***Good interior design leads to a good learning environment:*** Almost three-fourths of those surveyed consider a school's interior design "very important" for creating a good learning environment.
- ? ? ***Well-designed classrooms improve learning and achievement:*** Thirty-seven percent (37%) believe classroom design has a "very strong impact" on student learning and achievement. Another 55% believe it has a somewhat strong impact.
- ? ? ***Few teachers are totally satisfied with their classrooms:*** Only 18% give their classroom an "A" for overall design.
- ? ? ***Most classroom floor coverings are at least adequately cleaned and maintained:*** Twenty-six percent (26%) rate their classroom floor covering as "very well" cleaned and maintained, 53% as "adequately," and 21% as "poorly."
- ? ? ***Teachers in newer schools recognize the importance of interior design:*** Consistently, teachers in newer buildings recognize that design affects academics. They also give their classrooms high marks for overall design, as well as for floor covering cleaning and maintenance.

### **Carpet**

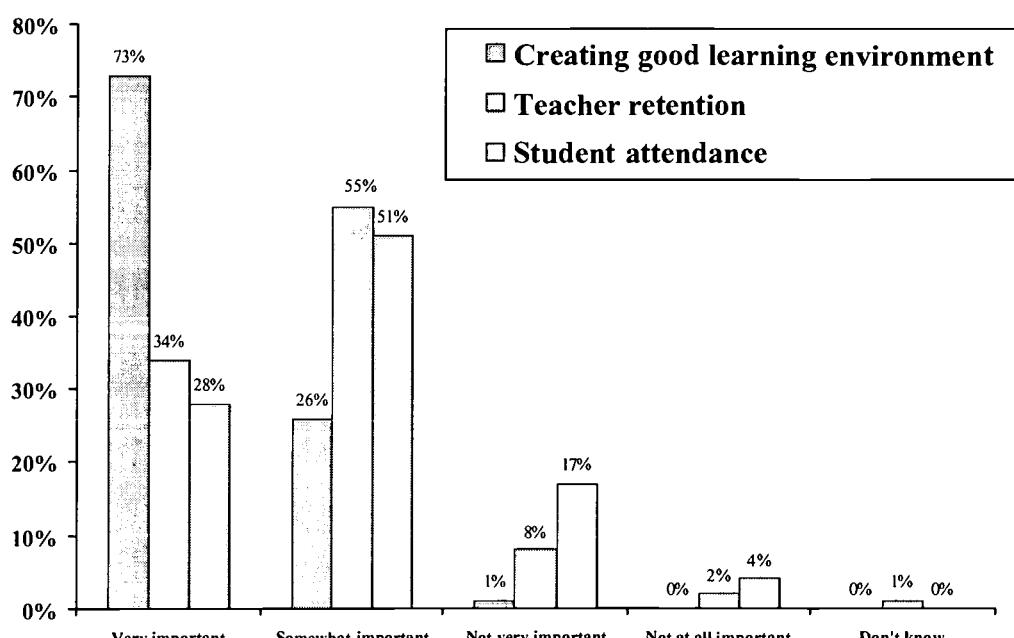
- ? ? ***Carpet scores well on the design features that count:*** At least two-thirds of those surveyed believe that safety, comfort, good acoustics, and flexibility are design elements that can have a very strong positive impact on learning and achievement. Majorities also agree that carpet helps prevent falls, provides comfort, absorbs noise, and allows for flexibility in the classroom.
- ? ? ***Carpet is both the most prevalent and most popular classroom floor covering:*** A plurality have carpet in the classroom and a plurality list it as their preferred classroom floor covering. Over two-thirds of those who have carpet list it as their preference.

? ? ***Classrooms with carpet get higher marks than those without:*** Teachers who have carpet give their classrooms higher grades for overall design than do those who do not have carpet. Also, those who have carpet are more likely to agree with positive statements about carpet and more likely to link design elements to academic achievement.

? ? ***Carpet is especially popular among elementary school teachers:*** Elementary teachers are more likely than their middle and high school counterparts to agree with positive statements about carpet and to believe it affects learning and achievement.

# TEACHERS SEE A STRONG LINK BETWEEN INTERIOR DESIGN AND A GOOD LEARNING ENVIRONMENT, AND MOST ALSO BELIEVE INTERIOR DESIGN INFLUENCES TEACHER RETENTION AND STUDENT ATTENDANCE

FIGURE 1: IMPACT OF INTERIOR DESIGN



"How important do you think a school's interior design is for creating a good learning environment? Is it...?"

"How important do you think a school's interior design is for teacher retention? Is it...?"

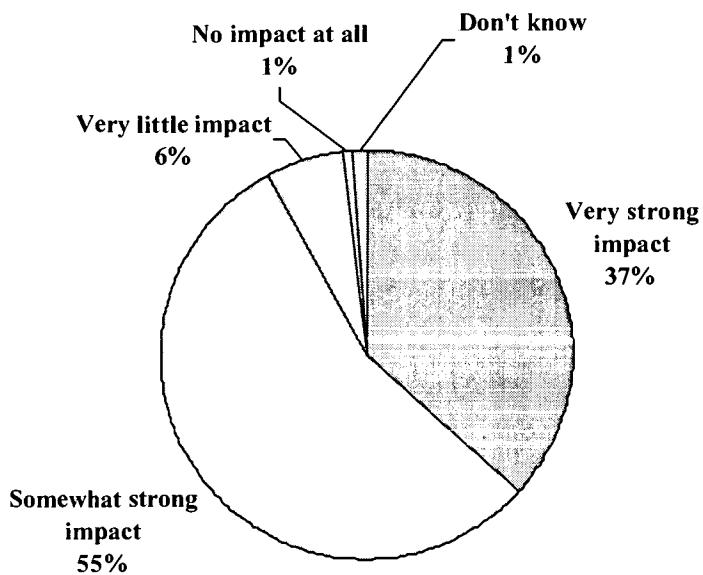
"How important do you think a school's interior design is for student attendance? Is it...?"

? ? Over 60% of all demographic groups believe a school's interior design is very important for creating a good learning environment.

? ? Teachers with more experience and those in buildings 1-5 years old are particularly likely to see a relationship between interior design and the three items tested.

# OVERWHELMINGLY, TEACHERS BELIEVE CLASSROOM DESIGN AFFECTS STUDENT PERFORMANCE

FIGURE 2: IMPACT OF CLASSROOM DESIGN



*"Thinking specifically about the interior design of classrooms, how much of an impact do you think general classroom design has on students' learning and achievement? Does it have a very strong impact, a somewhat strong impact, very little impact or no impact at all on students' learning and achievement?"*

? ? Teachers in schools 1-5 years old (45% very strong impact) are more likely than others to believe that classroom design affects learning and achievement.

## SAFETY, COMFORT, LIGHTING, AND ACOUSTICS TOP THE LIST OF DESIGN FEATURES

**TABLE 2: IMPACT OF CLASSROOM DESIGN**

	Very strong impact	Somewhat strong impact	Very little/no impact	Average grade <sup>2</sup>
A classroom that minimizes the risk of accidents	88%	10%	2%	3.3
Comfortable seating and work spaces for students	85%	14%	1%	2.9
Adequate lighting levels in the classroom	84%	15%	1%	3.2
A quiet environment with good acoustics	81%	18%	1%	2.8
Ability to control heating and air conditioning	79%	19%	2%	2.0
Flexibility to rearrange the room	67%	30%	4%	3.0
Sufficient number of conveniently-placed electrical outlets	58%	36%	6%	2.5
A classroom that is easy to clean and maintain	57%	38%	5%	3.0
Ability to control lighting in room	53%	40%	7%	2.7
Tackable wall surfaces	44%	43%	12%	2.5
Attractive colors, textures, and patterns of floors and walls	32%	56%	12%	2.7

*"Now, let's look more specifically at some design elements of a classroom. I'm going to read you a list of classroom design elements. For each one, I'm going to ask you two things. First, please tell me whether you think it has a very strong positive impact on students' learning and achievement, a somewhat strong impact, very little impact, or no impact at all on students' learning and achievement. Second, please grade your own classroom on that element, using A, B, C, D, or F."*

? ? Elementary teachers (30% very strong impact) are more likely than middle (16%) or high school (10%) teachers to believe carpet affects learning and achievement.

? ? There is a linear relationship between school age and the grades assigned to design elements, with teachers from newer schools significantly more likely than those from older ones to give high grades for each of the elements included on the survey.

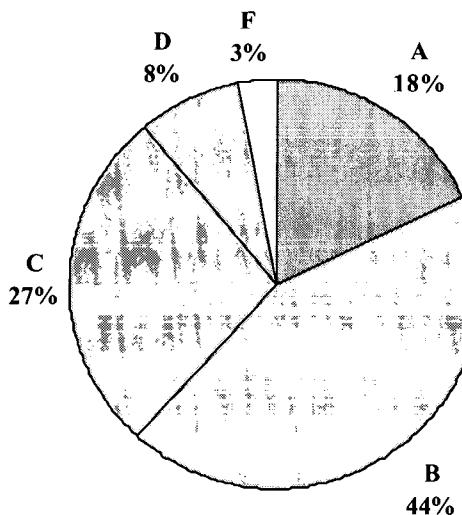
? ? Teachers with carpet in their classrooms are consistently more likely than those without to assign high marks for the elements included on the survey.

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<sup>2</sup> The numbers in this column represent average grades. Average grades were calculated with a standard grade point average (GPA) formula using the following grading scale: A=4, B=3, C=2, D=1, and F=0.

# TEACHERS ARE GENERALLY SATISFIED WITH THE OVERALL DESIGN OF THEIR CLASSROOMS

FIGURE 3: CLASSROOM GRADE



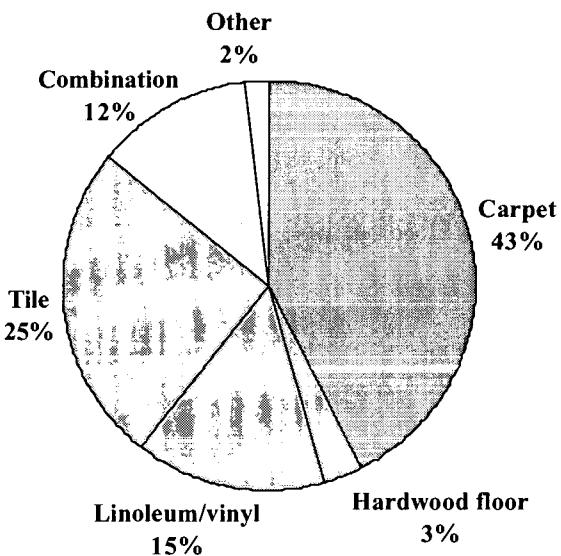
*"What grade would you give to the overall design of your classroom, A, B, C, D, or F?"*

? ? Teachers from schools 1-5 years old (44%) and Southwest teachers (30%) are particularly likely to give their classrooms an "A" for overall design.

? ? Teachers with carpet in the classroom (A – 23%, B – 47%, C – 20%, D – 6%, F – 4%) give their classrooms higher marks than do those who do not have carpet (A – 13%, B – 37%, C – 34%, D – 12%, F – 3%).

# A PLURALITY OF TEACHERS HAVE CARPET IN THEIR CLASSROOMS

FIGURE 4: FLOOR COVERING IN CLASSROOM



*"What type of floor covering do you currently have in your classroom?"*

? ? The presence of carpet varies considerably by region: Mountain/Farm (61%), Southwest (52%), West coast (46%), Midwest (43%), South (35%), and Northeast (32%). Tile is most common in the South (35%).

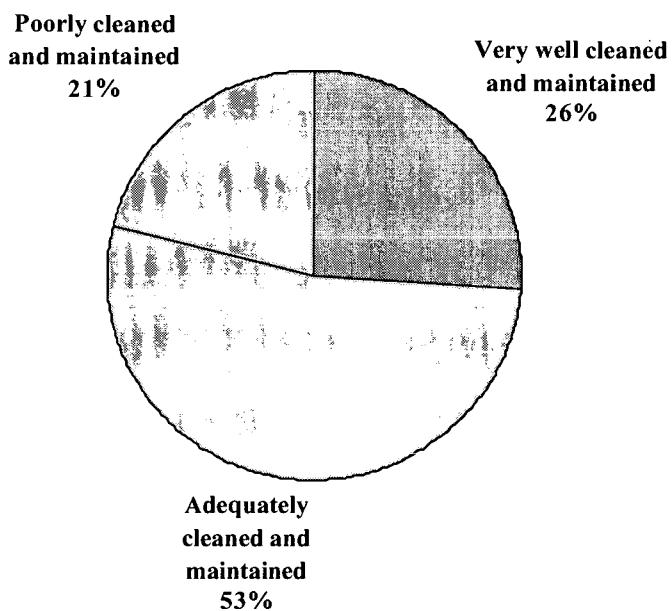
? ? Elementary teachers (46%) are more likely than their middle (40%) or high (33%) school counterparts to have carpet. Meanwhile, tile is less common among elementary school teachers (20%, compared to 32% of middle and 31% of high school teachers).

? ? There are also sharp differences according to school age: 1-5 years – 47% carpet, 21% tile; 6-15 years – 63% carpet, 13% tile; 16-25 years – 47% carpet, 21% tile; 26-40 years – 38% carpet, 30% tile; over 40 years – 29% carpet, 30% tile.

? ? Sixty-four percent (64%) of those in the target subgroup (those for whom carpet is appropriate and who want carpet) have carpet in their classrooms.

# A MAJORITY RATE THE CLEANING AND MAINTENANCE OF THEIR CLASSROOM FLOOR COVERING AS ADEQUATE

**FIGURE 5: CLEANING AND MAINTENANCE OF FLOOR COVERING**



*"How well would you say the floor covering in your current classroom is cleaned and maintained? Is it...?"*

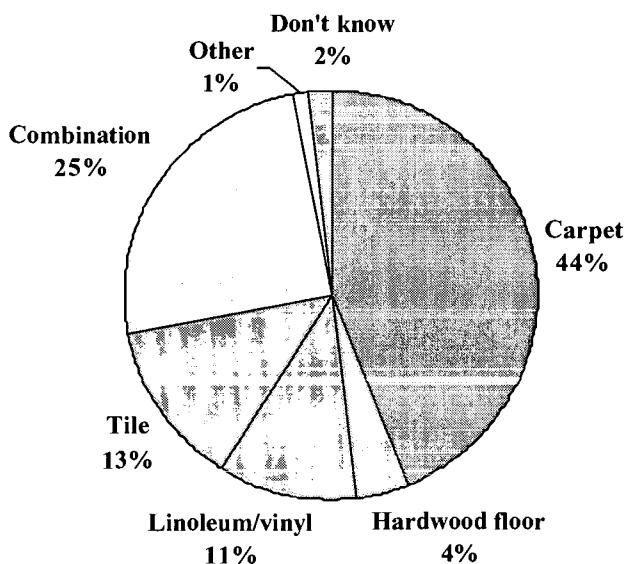
? ? Teachers from schools 1-5 years old (43% very well), those from the Mountain/Farm region (37%), and those who have been in education 1-5 years (36%) are particularly likely to say their floor coverings are very well cleaned and maintained.

? ? Those from schools over 40 years old (27% poorly) are the least satisfied with the way their floor coverings are cleaned and maintained.

? ? There are no significant differences on this issue between those who have carpet and those who do not.

# CARPET IS EASILY THE MOST POPULAR CLASSROOM FLOOR COVERING

FIGURE 6: FLOOR COVERING PREFERENCE



*"What type of floor covering would you most prefer to have in your classroom?"*

- ? ? Teachers who have carpet in the classroom (68%) are significantly more likely than those who do not (31%) to say carpet is their preferred floor covering.
- ? ? Carpet is most popular in regions where it is most prevalent (Southwest, Mountain/Farm) and least popular where it is least prevalent (South, Northeast).
- ? ? Seventy-nine percent (79%) of teachers who have carpet and for whom it is appropriate list it as their preferred floor covering. Thirty-nine percent (39%) of those who have it but say it is inappropriate name it as their preferred covering. Thirty-six percent (36%) of those who do not have carpet but say it is appropriate choose it as their preference. Finally, 14% of those who do not have carpet and for whom carpet is inappropriate still name it as their preferred floor covering.

# CARPET RECEIVES ITS HIGHEST MARKS FOR NOISE REDUCTION, COMFORT, AND FLEXIBILITY

TABLE 3: RATING CARPET

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Don't know
Carpet absorbs noise and helps make a classroom quieter	74%	23%	2%	0%	1%
A carpeted floor is more comfortable to stand on while teaching	65%	24%	6%	2%	3%
Carpet gives a teacher more classroom flexibility, such as allowing children to sit comfortably on the floor	54%	30%	9%	6%	1%
Carpet helps make a classroom more attractive	44%	35%	13%	6%	2%
Carpet helps prevent falls and injuries and makes a classroom safer	33%	44%	15%	6%	2%
Carpet is easy to clean and maintain	14%	34%	25%	24%	4%

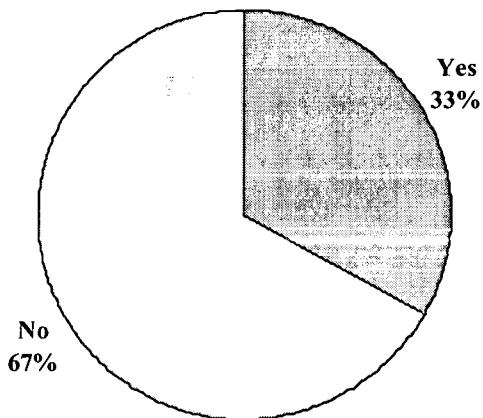
*"Now, let's look specifically at some classroom design issues related to carpet on the floor. I'm going to read you a list of statements about carpet. For each one, please tell me whether you agree or disagree."*

? ? Elementary school teachers, and those who have carpet in their classrooms give carpet particularly high marks on these items.

? ? Teachers with 1-5 years of experience give carpet lower marks than do others.

## CARPET IS APPROPRIATE IN THE OVERWHELMING MAJORITY OF CLASSROOMS

FIGURE 7: APPROPRIATENESS OF CARPET



*"Is there anything about the subject matter you teach that makes carpet inappropriate for your classroom?"*

? ? Midwest (41%) and elementary (38%) teachers are especially likely to say that carpet is inappropriate in their classrooms because of the subject matter they teach.

## **APPENDIX A: REGIONAL GROUPINGS**

### **West coast**

Alaska  
California  
Hawaii  
Oregon  
Washington

### **Midwest**

Illinois  
Indiana  
Michigan  
Minnesota  
Ohio  
Wisconsin

### **South**

Alabama  
Arkansas  
Florida  
Georgia  
Kentucky  
Louisiana  
Mississippi  
North Carolina  
South Carolina  
Tennessee  
Virginia  
West Virginia

### **Northeast**

Connecticut  
Delaware  
District of Columbia  
Maine  
Maryland  
Massachusetts  
New Hampshire  
New Jersey  
New York  
Pennsylvania  
Rhode Island  
Vermont

### **Rocky Mountain/Farm states**

Colorado  
Idaho  
Iowa  
Kansas  
Missouri  
Montana  
Nebraska  
Nevada  
North Dakota  
South Dakota  
Utah  
Wyoming

### **Southwest**

Arizona  
New Mexico  
Oklahoma  
Texas



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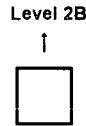
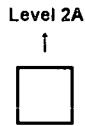
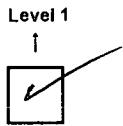
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